

REMARKS/ARGUMENTS

Claims 1-20 have been examined and finally rejected. The present response proposes amendments to claims 1, 6, 11, and 16. Entry of the present amendment after final, reconsideration, and allowance of all pending claims are respectfully requested.

Information Disclosure Statement Issues

The Examiner has expressed several concerns with the Information Disclosure Statement (IDS) submitted on December 12, 2003. The Examiner apparently believes that the private communication submitted therewith is highly relevant prior art to the present invention. The Applicant disagrees with this contention for reasons that will be explained with reference to the Examiner's prior art rejections. As will be explained, this private communication presented an unworkably simplistic approach to the problem of synchronizing connection establishment and thus did not "guide the applicant for the modification to the existing system."

The Examiner also expressed that this private communication should have been submitted earlier with the originally filed IDS. In response, the undersigned notes that Applicant has fully complied with the requirements for submitting a reference after the first office action by paying the appropriate fee. Now that the newly submitted reference is of record, there is no basis for prejudicing the handling of the application based on when the reference was submitted. Furthermore, the "BACKGROUND" section of the application as filed included the text:

To mitigate this deficiency, it has been suggested that, at the first attempt of bringing up the L2 (layer 2) link during system re-initialization, a DISC (disconnect) message be transmitted prior to the specified transmission of a SABME (Set Asynchronous Balanced Mode Extended) message. The SABME message is in essence a message for requesting establishment of the link. The SABME and DISC messages are defined by ITU Recommendation Q.921. According to this proposed solution, the DISC message is transmitted in all situations in which link layer services (LAPF) are restarted.

This text, presented as prior art, is a fair summary of the private communication submitted with the December 2003 IDS.

The Examiner also states that “prior art contents” from the “DETAILED DESCRIPTION OF THE INVENTION” (presumably referring to Applicant’s “DESCRIPTION OF SPECIFIC EMBODIMENTS”) should have been in the “BACKGROUND OF THE INVENTION” section. The undersigned does not know which prior art contents are being referenced by this remark. The description makes use of Recommendation Q.921 and Q.922 but such references are clearly identified as such. It is respectfully submitted that the text would read very awkwardly if these references were confined to the “BACKGROUND” section and it is noted that virtually every description of a new invention will involve references to elements that themselves are taken from the prior art.

The Examiner also asserts that Applicant has not sufficiently disclosed prior art. Specifically, there is said to be insufficient disclosure “containing the messages SABME, UA, DISC, UA, etc.” This statement is respectfully traversed. ITU Recommendation Q.921 contains complete descriptions of these messages in sections 3.6.1 and the text that follows. ITU Recommendation Q.921 was submitted with the IDS of July 6, 2001. The specific location of the relevant description is identified in the first paragraph on page 12 of the present application.

The Examiner also asserts that the Applicant has failed to provide “all the prior and copending patents related to the claimed invention.” This assertion misstates Applicant’s disclosure obligations. Applicant is not in fact responsible for providing all related prior and copending patents. Under 37 CFR 1.56, the obligation to submit is confined to “all information known to that individual to be material to patentability as defined in this section.” If the information is not known to the Applicant or others connected with the prosecution there is no obligation as to that information. The obligations under 37 CFR 1.56 have been fully met.

Prior Art Rejections

Claims 1-20 have been rejected as 35 U.S.C. 103(a) as being unpatentable over text in Applicant's "BACKGROUND" section (referred to here as Applicant's admitted prior art or AAPA) in view of the private communication submitted with the IDS of December 12, 2003 (referred to here as "private communication"). It is respectfully submitted that neither of these references disclose or suggest the claimed invention and that this rejection should therefore be withdrawn.

In essence the AAPA text serves as a summary of the essential points of the private communication so the argument here will focus on the private communication. Claims 1, 6, 11, and 16 all recite that a Q.921 data link establishment request is handled by first sending a Q.921 disconnect request to a peer device. Then a Q.921 request for connection is sent upon any one of 1) expiration of an awaiting-response timer, 2) receipt of a Q.921 disconnect message from the peer device, or 3) receipt of a Q.921 acknowledgement message from the peer device. For the purpose of clarification, the independent claims have been amended to read "any of" when referring to the conditions for sending the connection request.

The independent claims thus encompass a highly specific adaptation of the Q.922 connection logic. This adaptation has been carefully constructed to maintain compatibility with devices that do not themselves implement the adaptation. Changes to Q.922 connection procedures are minimized and the adaptation will operate correctly for all expected states of the peer device.

The private communication teaches a very simple extension to the Q.922 connection logic. A disconnect request (DISC) is sent. A Q.921 connection request is then only sent after an unnumbered acknowledgement (UA) response is received. This technique does not correctly address all expected states of the peer device. For example if the peer device is in state 4 (TEI assigned) or state 5 (awaiting establishment), it will respond with a disconnect mode (DM) message. The private communication technique does not acknowledge this possibility and will

not handle it correctly. By contrast, the independent claims recite that a connection request will also be sent after receipt of a disconnect mode message from the peer device.

The private communication technique also does not address the case where there is no peer device response to the DISC message. By contrast, the independent claims recite that the connection request message will be sent after expiration of a timer, thus addressing the problem of peer device non-responsiveness. The failure of the cited references to teach these features argues strongly against their relevance to the claimed invention. Claims 1, 6, 11, and 16 are allowable over the art of record.

Dependent claims 2-5, 7-10, 12-15, and 17-20 are allowable for at least the reason of their dependence from the allowable independent claims. Furthermore, claims 2, 7, 12, and 17 recite that the disconnect request message has a poll bit set to zero. By contrast, the private communication teaches setting the poll bit of this message to one. This is a crucial distinction. If the peer device responds to the disconnect request message with a disconnect mode (DM) message, Q.922 operation will require the flag bit of that response to be set the same as the poll bit of the disconnect request. Now when the first device receives a DM message with flag bit set to one, Q.922 state machine operation will not permit the link establishment process to start. See, for example, step 172 in Fig. 4B which shows that link establishment is bypassed when the received flag bit is set to one. Claims 2, 7, 12, and 17 thus recite an important feature not taught by the cited art.

Claims 3-4, 8-9, 13-14, and 18-19 recite further details of the adaptation to the Q.922 connection logic including the use of an "awaiting-response-to-the-disconnect" message flag. These features are also not disclosed or suggested by the art of record.

The Specification has been amended to correct an inconsistency in the description. No new matter has been added.

Appl. No. 09/745,851
Amd. Dated May 20, 2004
Reply to Office Action of January 23, 2004

Conclusion:

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8694.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Dan Lang", written over the printed name.

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